DS-363

DECEMBER 1976

DAIRY Situation

ECONOMIC RESEARCH SERVICE

U.S. DEPARTMENT OF AGRICULTURE

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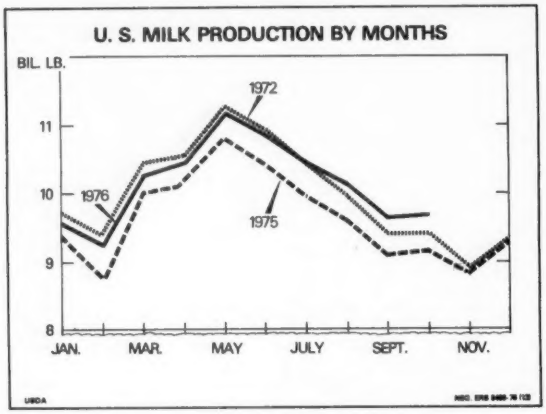
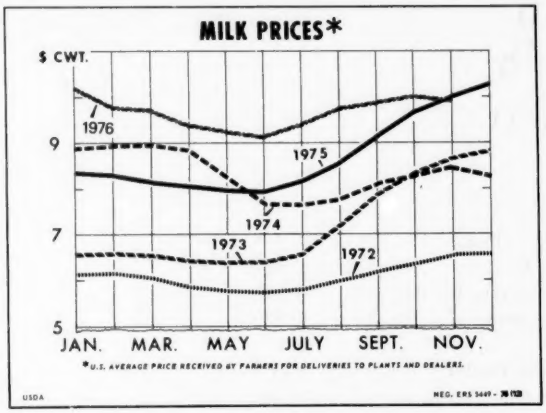


Figure 1



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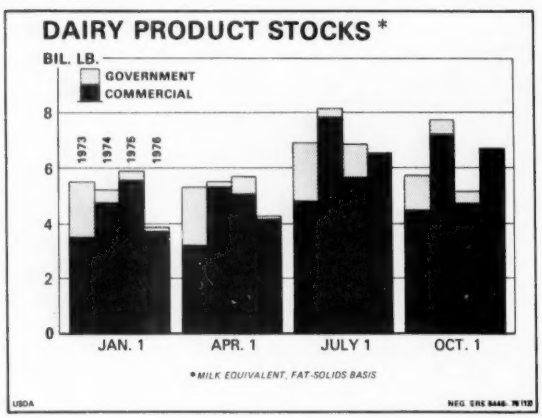

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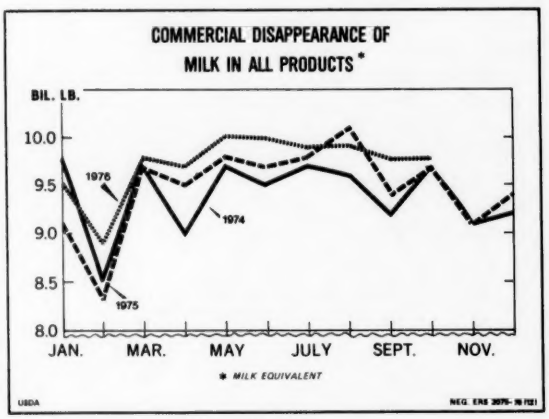

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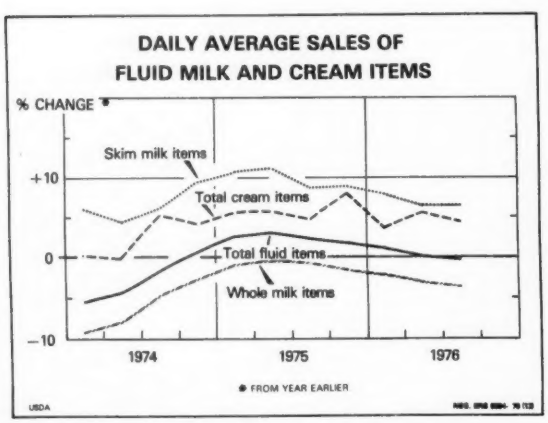

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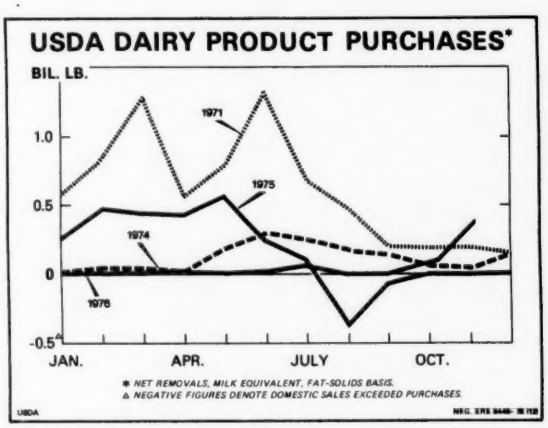

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SUMMARY

Milk production probably will remain above year-earlier levels in early 1977 although it likely will not expand at this year's rapid rate. Total production for 1977 likely will increase 1-2 percent from this year, but will depend on milk prices, cull cow prices, crop conditions and subsequent feed prices, and developments in the general economy later in the year. The 1976 total is expected to be close to 120 billion pounds, an increase of 4-5 billion pounds over 1975.

The decline in milk cow numbers has slowed. October numbers were down only 0.6 percent from a year ago and were up 12,000 head from September—the first month-to-month increase since December 1974. However, with less favorable milk-feed relationships expected in early 1977, heavier culling could occur.

Despite this year's record corn crop, dairymen probably will face somewhat higher feed costs during the first half of 1977 than a year earlier. Soybean meal prices will be sharply higher and hay prices are expected to continue well above a year earlier.

October's milk production was 5.6 percent above 1975 and the largest October output since 1964. This was the thirteenth straight month of expan-

The *Dairy Situation* is published in March, May, July, September, and December

ding milk output, but the increase in October from a year earlier was slightly below the 6.4 percent increase in September.

Farm milk prices have begun to decline under the weight of the heavy supplies and, at $9.91 per 100 pounds in November, were down 9 cents from both October and a year ago. This was the first month since June 1975 that milk prices averaged below a year earlier. Manufacturing milk prices in November were only about 14 cents above the $8.26 support price. Prices probably will run close to support levels during the first half of 1977 and likely will average well under a year earlier. While prices later in the year will depend on milk production, commercial sales of dairy products, and support price actions, milk prices for all of next year could average below 1976's level—the first annual decline in 15 years.

Cash receipts from dairying were up about 11 percent from a year ago in September-October, due to both higher prices and larger marketings. The 1976 total may be around $11½ billion, up from $9.9 billion in 1975.

After about a year and a half of volatile but generally high prices, wholesale butter and cheese prices settled near support levels this fall. In the face of seasonally rising milk output and currently weak market conditions, wholesale prices likely will hold close to support levels in early 1977.

Retail prices of dairy products rose more than 3 percent between May and October this year, but they probably will be fairly stable in coming months. The increases from a year earlier are expected to be quite small in early 1977 and average retail prices for all of next year likely will be only slightly above 1976, after an 8-percent average rise this year.

Output of manufactured dairy products has been very heavy this fall as large milk production and steady-to-lower fluid sales pushed much more milk into manufacturing. Cheese output in October was record high for that month, butter output was up more than a tenth from last year, and nonfat dry milk production boomed.

Boosted by soaring cheese sales, dairy sales have been quite strong this year. Commercial disappearance for all of 1976 will likely approach 116 billion pounds milk equivalent, up 2 billion pounds from 1975, and it could exceed 1966 levels to set a new record. Butter sales this year, while down from last year's high levels, could compare favorably with sales of the early 1970's. Sales prospects for 1977 also appear favorable. Expected growth in consumer purchasing power and higher retail beef prices probably will help to boost cheese sales, although a repeat of this year's large jump in cheese sales is not expected. Relatively stable retail prices should help strengthen sales of dairy products in 1977.

Commercial dairy stocks are now quite large. About 2 billion pounds of this year's higher milk output was absorbed in the rebuilding of commercial dairy stocks from the very low levels of early this year.

Government removals of butter and cheese under the price support program have now resumed as substantial amounts of butter, cheese, and nonfat dry milk all are being purchased. CCC purchases are likely to be heavy in early 1977 as increased milk output combined with large commercial dairy stocks may easily outstrip demand. On December 3, USDA announced that the current support price of $8.26 per 100 pounds of manufacturing grade milk and the current support purchase prices of dairy products will remain unchanged for the rest of the marketing year.

Commercial trade in dairy products with foreign countries this year has continued small. Dairy imports this year have been above the low levels of 1975 with larger imports of both quota and nonquota cheese accounting for most of the increase. With the exception of nonfat dry milk donated under the Food for Peace program, exports of dairy products have remained small in 1976. World supplies of milk and dairy products remain heavy, although world milk production in 1976 apparently was about the same as 1975. World milk output next year could show an increase of about 2 percent.

DAIRY SITUATION

SITUATION AND OUTLOOK

PRODUCTION

Jumps in Milk Output Continue

October's milk production totaled 9.7 billion pounds, the largest October output since 1964. The October increase, of 5.6 percent, from a year earlier was the thirteenth consecutive monthly increase but was slightly below the 6.4 percent increase in September. With these increases, production for the first 10 months of 1976 was up about 4 percent from a year earlier (table 1). While all regions have produced more milk this year, the largest gains have been in the important dairy regions of the Lake States, the Pacific region, and the Northeast. The continuing strong increases in milk production could bring the 1976 total close to 120 billion pounds, an increase of some 4-5 billion pounds over the 1975 total.

U.S. milk production

Month	1975	1976	Change
	Million pounds	*Million pounds*	*Percent*
January	9,379	9,545	+1.8
February	8,781	9,248	+5.3
March	10,021	10,250	+2.3
April	10,121	10,450	+3.3
May	10,818	11,184	+3.4
June	10,435	10,865	+4.1
July	9,967	10,448	+4.8
August	9,588	10,132	+5.7
September	9,068	9,652	+6.4
October	9,173	9,685	+5.6
November	8,823		
December	9,284		
Total	115,458		

Production per cow has been the major source of increased production this year as dairymen may be more fully realizing pent-up gains from the past few years in genetic potential. With the favorable conditions for dairying in 1976, farmers have continued the heavier feeding which began in mid-1975. On October 1, they were feeding about 4 percent more concentrates than last year.

Milk cow numbers in October were down 0.6 percent from a year ago and up 12,000 head from September—the first month-to-month increase since December 1974. Milk cow numbers have remained only about 1 percent or less below a year ago thus far in 1976, despite considerably higher cull cow prices during most of this period. The decline has been slowed by the relatively favorable conditions for milk production and the continued large numbers of heifers entering the milking herd. Utility cow prices were about $20-$22 per 100 pounds at Omaha during early December, compared with about $22 in December 1975 and $18 two years ago.

Utility cow prices, Omaha

Month	1974	1975	1976
	Dollars per cwt.	*Dollars per cwt.*	*Dollars per cwt.*
January	31.45	16.82	23.26
February	32.65	18.18	25.90
March	31.76	19.45	27.45
April	30.49	21.67	30.72
May	27.67	23.55	30.24
June	26.39	23.32	27.47
July	24.22	22.00	25.80
August	24.54	21.29	25.10
September	22.56	22.45	22.90
October	19.68	22.01	22.72
November	17.62	20.73	20.59
December	17.67	21.64	
Average	25.56	21.09	

Increases Expected in Early 1977

Milk production likely will remain above year-earlier levels in early 1977, although the magnitude of the increase will depend on several factors. While many of these factors point to somewhat less favorable conditions for milk production than in early 1976, the very favorable conditions of this year and the momentum which has built up provide the potential for continued strong increases.

(1) Farm milk prices have started to decline in response to declining wholesale prices. Farm milk prices in early 1977 could average well below year-earlier levels.

Table 1.--Milk production and factors affecting supply, United States, selected years, 1950-76

Year	Milk cattle on farms, January 1 1/			Milk cows on farms, average during year	Milk production		Prices received by farmers, 1967=100	
	Milk cows and heifers that have calved	Milk cow replacements; heifers 500 pounds and over			Per cow	Total	Dairy products	All farm products
		Total	Per 100 cows					
	Thou.	Thou.	No.	Thou.	Lb.	Mil. lb.		
1950	22,000	6,945	31.6	21,944	5,314	116,602	81	102
1955	21,320	6,832	32.0	21,044	5,842	122,945	81	91
1960	17,650	5,686	32.2	17,515	7,029	123,109	84	94
1965	15,380	4,780	31.1	14,953	8,305	124,180	85	98
1966	14,490	4,450	30.7	14,071	8,522	119,912	96	106
1967	13,725	4,215	30.7	13,415	8,851	118,732	100	100
1968	13,115	4,080	31.1	12,832	9,135	117,225	104	102
1969	12,550	3,990	31.8	12,307	9,434	116,108	109	107
1970	12,091	3,880	32.1	12,000	9,747	116,962	113	110
1971	11,909	3,843	32.3	11,842	10,009	118,532	116	113
1972	11,778	3,828	32.5	11,698	10,250	119,904	120	125
1973	11,624	3,874	33.3	11,409	10,114	115,385	140	179
1974	11,286	3,942	34.9	11,219	10,300	115,553	160	192
1975 2/	11,211	4,095	36.5	11,151	10,354	115,458	167	186
1976 2/	11,092	3,973	35.8	*11,061	*9,173	*101,459	**191	**187

Year	Average prices received by farmers per 100 pounds					Parity prices per 100 pounds 3/		
	All milk, wholesale	Milk, eligible for fluid market	Milk, manufacturing grade	Bottling milk 4/	Milkfat in cream 5/	All milk, wholesale	Milkfat in cream 5/	Equivalent for manufacturing milk
	Dol.	Dol.	Dol.	Dol.	Ct.	Dol.	Ct.	Dol.
1950	3.89	4.36	3.16	4.86	62.0	4.32	69.2	3.82
1955	4.01	4.50	3.15	5.18	57.8	4.71	74.1	3.94
1960	4.21	4.69	3.25	5.48	60.5	5.01	74.1	4.01
1965	4.23	4.63	3.34	5.39	61.1	5.53	79.2	4.31
1966	4.81	5.17	3.97	5.82	67.2	5.73	82.1	4.47
1967	5.02	5.43	4.06	6.20	68.2	5.88	84.0	4.62
1968	5.24	5.67	4.22	6.50	68.4	6.06	86.1	4.79
1969	5.49	5.87	4.45	6.70	68.9	6.49	91.5	5.15
1970	5.71	6.05	4.70	6.94	70.0	6.87	95.3	5.49
1971	5.87	6.19	4.86	7.12	69.1	7.21	99.1	5.79
1972	6.07	6.38	5.08	7.26	67.5	7.70	103.0	6.21
1973	7.14	7.42	6.20	N.A.	67.2	8.64	113.0	7.01
1974	8.33	8.66	7.13	N.A.	63.5	9.88	124.0	8.12
1975 2/	8.75	9.02	7.63	N.A.	71.0	11.00	129.0	9.14
1976 2/	**9.67	**9.96	**8.58	N.A.	N.A.	12.10	131.0	10.16

1/ Prior to 1965, estimated by Livestock Section, ERS.
2/ Preliminary.
3/ At beginning of marketing year.
4/ Dealers' average buying price for milk used in fluid products.
5/ Cents per pound.

* Ten-month total or average.
** Eleven-month average.

Table 2.--Dairy: Feed costs, milk cow and other livestock prices, milk-livestock price ratios, and feed consumed, United States, selected years, 1955-76

Year	Dairy ration cost		Milk cow cost		Livestock prices and milk-livestock price ratios			
	Value per 100 pounds	Milk-feed price ratio	Price received per head	Milk required to buy a cow	Beef-cattle price per 100 pounds	Manufacturing milk-beef price ratio	Hog price per 100 pounds	Manufacturing milk-hog price ratio
	Dol.	Lb.	Dol.	Cwt.	Dol.	Lb.	Dol.	Lb.
1955	3.16	1.28	146	36	15.60	0.20	15.00	0.21
1960	2.92	1.45	223	53	20.40	.16	15.40	.21
1961	2.92	1.45	224	53	20.20	.17	16.60	.20
1962	2.95	1.40	221	54	21.30	.15	16.30	.20
1963	3.04	1.36	215	52	19.90	.16	14.90	.22
1964	3.03	1.38	209	50	18.00	.18	14.80	.22
1965	3.03	1.40	212	50	19.80	.17	20.80	.17
1966	3.15	1.53	246	51	22.20	.18	23.00	.18
1967	3.23	1.56	260	52	22.20	.18	19.00	.22
1968	3.10	1.70	274	52	23.40	.18	18.70	.23
1969	3.15	1.75	300	55	26.20	.17	23.00	.20
1970	3.28	1.74	332	58	27.10	.17	21.90	.22
1971	3.44	1.71	358	61	29.00	.17	17.90	.27
1972	3.52	1.73	397	65	33.50	.15	26.00	.20
1973	4.88	1.46	496	69	42.80	.15	39.40	.16
1974	6.23	1.34	500	60	35.60	.20	34.30	.21
1975 1/	6.25	1.40	412	47	32.30	.24	46.10	.16
1976 2/	6.16	1.57	476	49	34.00	.25	43.50	.20

Year	Grain and other concentrates fed to milk cows			Dairy pasture feed condition, as percent of normal	Alfalfa hay prices		Quantity fed per cow, winter feeding period ending in May 3/		
	Total fed 4/	Per cow 4/	Per 100 pounds of milk produced 5/		Received by farmers per ton	Paid by farmers per ton	Hay	Silage	Total hay equivalent
	Thou. tons	Lb.	Lb.	Pct.	Dol.	Dol.	Tons	Tons	Tons
1955	18,664	1,758	30.1	77	22.00	33.70	2.2	2.2	3.0
1960	19,821	2,259	32.2	82	21.00	31.60	2.5	2.7	3.4
1961	20,916	2,404	33.2	84	21.00	30.90	2.5	2.6	3.4
1962	21,617	2,533	34.3	80	21.40	30.60	2.5	2.8	3.4
1963	21,858	2,646	35.1	73	23.50	32.90	2.4	2.8	3.4
1964	22,464	2,800	35.9	73	24.00	32.60	2.4	3.1	3.5
1965	22,827	2,953	36.7	80	24.00	33.00	2.4	3.2	3.5
1966	22,569	3,000	37.6	78	24.70	33.40	2.3	3.3	3.4
1967	22,790	3,374	38.3	80	23.60	34.08	2.4	3.5	3.5
1968	22,886	3,519	39.1	83	23.00	32.94	2.4	3.6	3.6
1969	23,615	3,726	40.7	82	23.90	34.08	2.4	3.9	3.7
1970	24,870	3,979	42.4	81	24.70	34.69	2.4	3.9	3.7
1971	25,107	4,070	42.4	79	27.10	37.57	2.4	4.9	3.9
1972	25,162	4,298	41.9	80	31.45	40.15	Series discontinued		
1973	25,042	4,389	43.4	83	41.55	51.65			
1974	24,586	4,384	42.6	75	52.58	63.58			
1975 1/	24,274	4,357	42.1	79	54.38	66.18			
1976 2/	---	---	---	71	2/60.64	2/71.75			

1/ Preliminary.
2/ Eleven-month average.
3/ In herds kept by dairy reporters.
4/ Not comparable to earlier years, beginning 1966.
5/ On farms where milk or cream was sold. Beginning 1966, data are for all farms where milk was produced.

(2) Dairy ration costs were above a year ago in November and likely will average slightly higher than a year earlier during the barn feeding season due to expected higher prices for soybean meal. Prices later in 1977 will be heavily influenced by the outlook for 1977 crops.

(3) The milk-feed price ratio stood at 1.64 in November, down from 1.67 last November. Milk-feed price relationships likely will be less favorable during the first half of 1977 than in early 1976.

(4) Slaughter cow prices may improve slightly early next year and could be well above year-earlier levels during the second half of 1977.

Considered in total, this set of conditions likely will mean increased output this winter, although the rate of gain is expected to slacken when compared with this year's rapidly increasing output. The still relatively favorable milk-feed price relationships and continued heavier grain feeding likely will lead to continued strong gains in output per cow, which probably will more than offset moderate declines in cow numbers.

Milk production later in 1977 will depend on milk prices, cull cow prices, crop conditions and subsequent feed prices, and developments in the general economy. The greatest uncertainty is whether the expected lower milk prices and the return to surplus conditions in the dairy industry will substantially slow the increases in milk output. Policy and legislative decisions will be important in 1977. With weakened market conditions and a large potential for surplus conditions in 1977, price support actions and new farm legislation will influence production decisions. If dairymen continue heavy concentrate feeding and the declines in milk cow numbers stay very small, milk production would post strong gains throughout 1977. On the other hand, larger drops in cow numbers or limited feeding could pull milk output down to year-earlier levels by late 1977. But all factors considered, milk production in 1977 likely will show an increase of 1-2 percent.

Higher Protein Feed Prices Expected

As of November 1, this year's corn crop was forecast at a record 6.1 billion bushels, about 5 percent above 1975, while the soybean crop was forecast at 1.25 billion bushels, about 18 percent below last year.

The smaller soybean crop and stronger prices for soybeans indicate that soybean meal prices will be sharply higher during the 1976/77 feed year. Soybean meal prices in early December were about $190-$198 per ton, compared with about $130 a year ago. Corn in Chicago in early December was quoted around $2.40-$2.45 per bushel, down slightly from October and off about 30 cents from a year ago. Corn prices at the farm may average slightly lower in 1976/77 than the $2.55-per-bushel average in the 1975/76 corn marketing year but probably will not offset higher protein prices. Price levels at midseason will be heavily influenced by 1977 crop prospects.

Milk-feed price ratio[1]

Month	1974	1975	1976
	Pounds	*Pounds*	*Pounds*
January	1.54	1.25	1.75
February	1.51	1.29	1.66
March	1.49	1.33	1.64
April	1.50	1.30	1.60
May	1.45	1.30	1.51
June	1.37	1.30	1.42
July	1.30	1.34	1.42
August	1.16	1.36	1.52
September	1.22	1.47	1.53
October	1.21	1.56	1.60
November	1.23	1.67	1.64
December	1.20	1.70	
Average	1.34	1.40	

[1] Pounds of concentrate ration equal in value to 1 pound of milk.

The cost of 16-percent dairy ration averaged $143 per ton in November, up about 8 percent from a year ago. The milk-feed price ratio (pounds of feed equal in value to 1 pound of milk) was about 1.64 in November, down slightly from the 1.67 of a year earlier (figure 7). The difference in the value of 100 pounds of milk and 100 pounds of concentrate ration was $3.81 in November, down from the year-earlier difference of $4.00. Milk-feed price relationships likely will be less favorable during the first half of 1977 than in early 1976 (table 2).

Acres of corn silage harvested was up, as might be expected, in moisture-short corn producing areas. Much of the shift occurred in dairy areas of Minnesota and Wisconsin, as farmers faced with marginal grain yields and smaller hay supplies were forced to shift to silage.

Based on October 1 indications, hay production this year will total nearly 120 million tons, about 10 percent less than in 1975. Decreases in both acreage harvested and yield accounted for the smaller crop. In the five leading dairy States total hay production was down sharply, but New York showed an increase from 1975. Farmers paid an average $75 per ton for baled alfalfa hay in November, up substantially from the $66 paid last November.

Good quality hay will command premium prices this winter and farmers in hay-deficit areas will be faced with increasing transportation costs. However, the recent amendment to the Disaster Relief Act of 1974 will help the hay situation. The amendment, which was included in the Farmer-to-Consumer Direct Marketing Act of 1976, directs USDA to pay 80 percent (not to exceed $50 per ton) of the

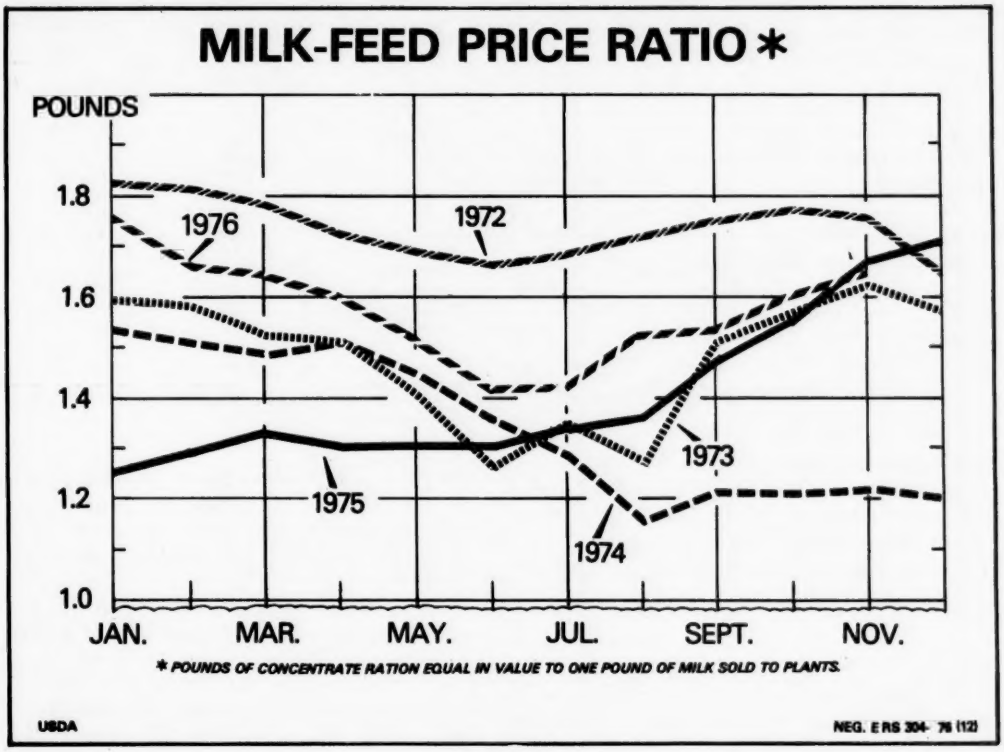

Figure 7

cost of transporting hay from areas of plentiful supplies to farmers located in areas declared eligible for Federal disaster relief and up to $12.50 per ton for silage. This program amendment, administered by the Agricultural Stabilization and Conservation Service, will be in effect until October 1, 1977. The resulting stepped-up demand will tend to give added strength to hay prices in areas where surpluses exist.

Dairy cattle in many States came off pasture much earlier this fall than last as the Nation's pastures on November 1 were reported in poor condition at a rating of 66. This was 11 points below a year ago and 13 points below the 1965-74 average for that date. Among the leading dairy States, pastures were in good to excellent condition in New York and Pennsylvania, while Wisconsin and Minnesota pastures were rated as severe to extreme drought.

Milk Output Per Man-Hour Increases

Obtaining dependable labor remains a pressing problem for dairy farmers, who are having to compete with wages paid in nonfarm industries as well as in other farm enterprises. Wage rates in manufacturing industries averaged $4.81 per hour last year, an increase of 9 percent over 1974. These wage rates had been increasing around 7 percent per year during 1969-74. As dairymen increase herd size, hired labor can become more important. Partly because of the difficult labor situation and the confining nature of dairy farming, more of the larger 2- and 3-man family dairy operations have been developing.

Over the years, dairy farmers have reduced labor requirements and increased output per man-hour (figure 8). A major force behind the increases has been gains in production per cow, sparked in part by increased feeding rates. In addition, many relatively inefficient operations have left dairying and many of the remaining ones have adopted labor-saving technologies.

Milk output per man-hour in 1975 was about 7 percent greater than in 1974 and 16 percent greater than in 1973, when production per cow decreased for the first time in 30 years. The 1975 increase kept pace with last year's increase in total farm labor productivity.

In 1975, dairy farmers used around 8.4 minutes of direct labor daily per animal to care for milk

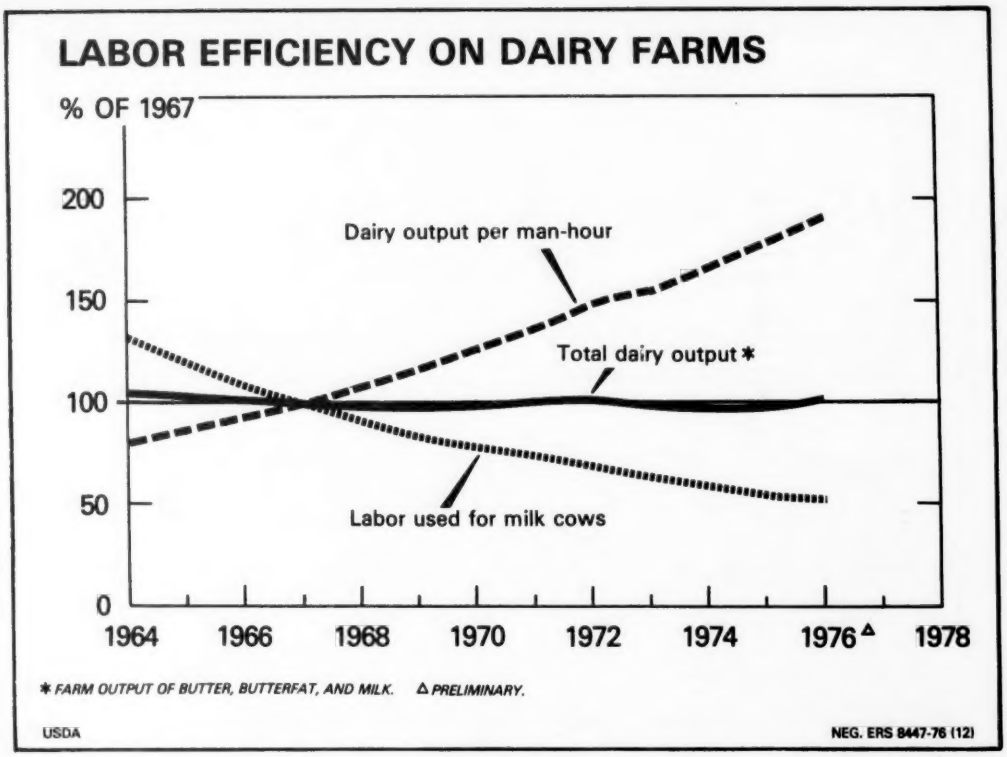

Figure 8

cows, about 39 percent less time than required 10 years ago and 6 percent less than 1974. These figures are based on the average number of cows milked during the year and exclude time spent in raising feed and caring for herd replacements.

Labor productivity gains in dairy farming have been far ahead of most other agricultural enterprises. Output per man-hour in dairying more than doubled in the past decade, while the increase for all farm work was around 58 percent. During the past 10 years, only poultry came close to equaling the productivity gains shown by dairying. Heavier feeding rates during 1976 have sharply accelerated the increases in output per cow. Consequently, milk output per man-hour in 1976 may show a substantial increase from 1975.

PRICES AND INCOME

Farm Milk Prices Under 1975

Farm milk prices have begun to decline under the weight of heavy supplies. Farmers received an average $9.91 per 100 pounds in November, down 9 cents from both October and a year ago. This was the first month since June 1975 that milk prices averaged below a year earlier.

Manufacturing grade milk prices started to decline in September and averaged $8.54 per 100 pounds in November, down 47 cents from a year ago. The 34-cent decline from the August peak would have been sharper except for the seasonally rising fat tests. Adjusted to annual average fat test, manufacturing grade milk prices were only about 14 cents above the $8.26 support price in November.

American cheese plants in October paid about 20 cents more than butter-powder plants for milk of equivalent fat test. Although wholesale prices have generally favored production of block cheese over butter-nonfat dry milk, this has not been true for barrel cheese of which supplies are now more than

Table 3.--Milk marketings and cash receipts, United States, selected years, 1955-76 1/

Year	Milk used on farms where produced	Milk marketed by farmers				Cash receipts from milk marketed by farmers			
		Sold to plants and dealers		Retailed by farmers as milk and cream	Total	Milk sold to plants and dealers	Cream sold to plants and dealers	Retailed by farmers	Total
		As whole milk	As farm separated cream						
	Billion pounds					Billion dollars			
1955	14.6	91.0	14.7	2.7	108.3	3.6	0.3	0.3	4.2
1960	9.2	103.9	7.9	2.1	114.0	4.4	.2	.2	4.8
1965	6.0	112.7	3.7	1.8	118.2	4.8	.1	.2	5.0
1966	5.5	109.7	3.0	1.7	114.4	5.3	.1	.2	5.5
1967	5.2	109.4	2.4	1.8	113.6	5.5	.1	.2	5.7
1968	4.7	108.8	2.0	1.8	112.6	5.7	2/	.2	6.0
1969	4.3	108.5	1.6	1.7	111.8	6.0	2/	.2	6.2
1970	4.0	110.0	1.2	1.7	113.0	6.3	2/	.2	6.5
1971	3.7	112.2	1.0	1.6	114.8	6.6	2/	.2	6.8
1972	3.6	114.0	.8	1.5	116.3	6.9	2/	.2	7.1
1973	3.4	109.8	.7	1.5	112.0	7.8	2/	.2	8.1
1974	3.3	110.3	.4	1.5	112.3	9.2	2/	.2	9.4
1975 3/	3.2	110.3	.4	1.5	112.2	9.6	2/	.2	9.9
1976 4/	3.2	115.2	.3	1.5	117.0	11.2	2/	.2	11.4

1/ Totals may not add due to rounding.
2/ Less than $50 million.
3/ Preliminary.
4/ Estimated.

Milk prices received by farmers

Month	All sold to plants			Manufacturing grade		
	1974	1975	1976	1974	1975	1976
	Dollars per 100 pounds					
January	8.89	8.43	10.20	8.13	6.97	9.07
February	8.92	8.38	9.79	8.15	7.02	8.45
March	8.96	8.22	9.72	8.14	7.03	8.53
April	8.84	8.18	9.37	7.75	7.06	8.50
May	8.26	8.07	9.23	6.87	7.07	8.31
June	7.69	7.99	9.11	6.42	7.09	8.32
July	7.62	8.25	9.41	6.31	7.27	8.60
August	7.75	8.64	9.75	6.46	7.63	8.88
September	8.08	9.25	9.87	6.81	8.25	8.64
October	8.35	9.70	10.00	7.03	8.77	8.53
November	8.49	10.00	9.91	7.02	9.01	8.54
December	8.27	10.30		6.74	9.30	
Average	8.33	8.75		7.13	7.63	

ample. With wholesale prices expected to continue near support purchase prices, cheese operations may continue to pay slightly more for milk in coming months.

Minimum Class I prices in Federal order markets will average about $10.36 per 100 pounds in January, the same as in December but down 73 cents from October and 58 cents from a year earlier. These declines reflect the sharp declines this autumn in the Minnesota-Wisconsin (M-W) price, the basic formula price in Federal order markets. The M-W price has more rapidly reflected the declines in wholesale dairy product prices than any other farm milk price.

Estimated over-order prices negotiated by cooperatives, which may include charges for services rendered, averaged approximately 30 cents per hundredweight over Federal order minimum Class I prices during January-September this year. This was about 40 cents below the average level for the same period last year. While Federal order minimum Class I prices have moved up and down in response to changes in the M-W price, payments over these order minimum prices have been relatively stable. In only 2 months did the estimated over-order payment vary from the 30-cent average by much more than a dime. Based on the 73-cent drop in minimum Class I prices from October to December, payments above the order minimums can be expected to increase during the last few months of this year. Changes in over-order payments tend to move in the opposite direction from changes in the M-W price.

Lower Milk Prices Expected

With large commercial stocks and expected heavy milk output, farm milk prices probably will stay close to support levels during the rest of the current marketing year and generally will be well under a year earlier. The relatively large USDA purchases and generally heavy supplies during the period when prices normally peak seasonally offer little hope of prices rising as milk production starts to increase seasonally. On December 3, USDA announced that the support price for manufacturing grade milk will remain at $8.26 per 100 pounds for the last quarter of this marketing year.

Prices later in the year will depend on milk production, commercial sales of dairy products, and support price actions. It is likely that farm milk prices will average near support level through the flush milk production season. If the expected increases in milk output materialize, there are no more than modest increases in dairy sales, and the support price is not increased, farm milk prices for all of next year could average below 1976, the first annual decline in 15 years.

1976 Cash Receipts Up Sharply

Cash receipts from dairying were boosted by both higher milk prices and larger marketings during September-October and totaled about 11 percent above a year ago. Although still substantial, the increase from a year earlier has diminished considerably from the 20-percent gains posted earlier this year. Total cash receipts for 1976 could approach $11½ billion, up from $9.9 billion in 1975 (table 3). In early 1977, gross cash income from milk sales could be slightly below or about the same as in early 1976, as lower milk prices probably will offset higher marketings.

The index of prices paid for production items declined in recent months but remained considerably above a year earlier. This index was almost 5 percent higher than a year ago in September-October but was down about 2 percent from July. Dairy concentrate prices held above a year earlier in September-October and hay prices were up sharply to record-high levels. The index of prices paid for production items likely will remain above a year earlier in coming months, in contrast to the lower expected milk prices.

Wholesale Prices At Support

After about a year and a half of volatile but generally high prices, wholesale butter and cheese prices settled near support levels in October (figure 9). Wholesale prices of both these products dropped sharply in early 1976, recovered partially to an early spring plateau, rose sharply in early summer, and then dropped quickly in late summer-early fall. These fluctuations occurred as the markets had to adjust to large increases in both milk production and the demand for dairy products as well as very low beginning stocks. Nonfat dry milk prices at wholesale were an exception, however,

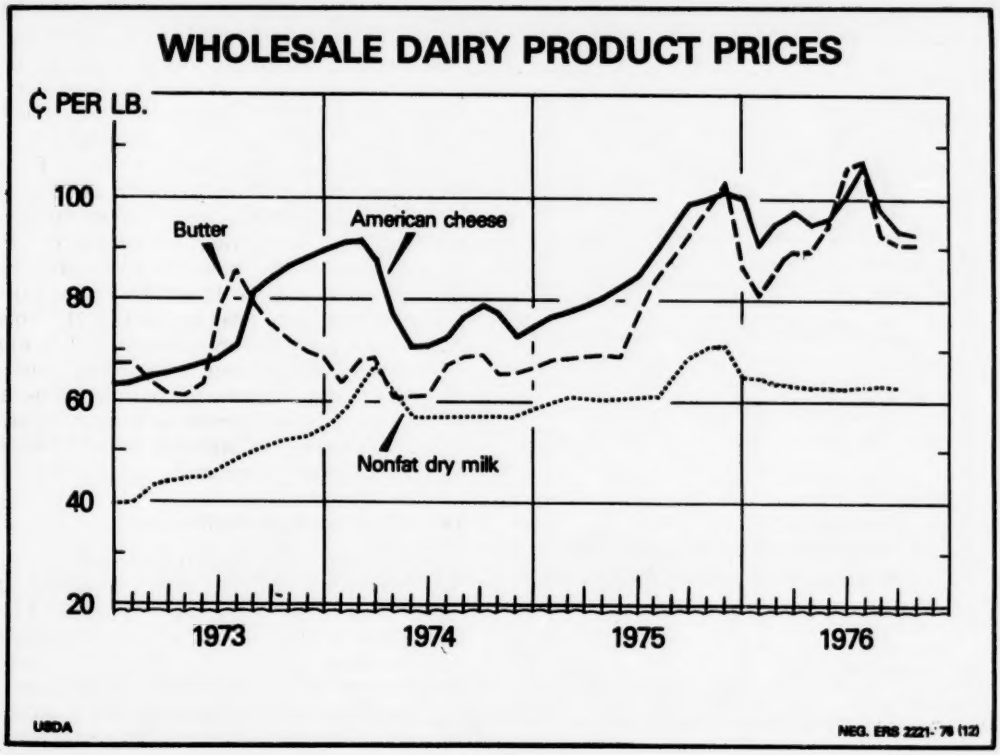

Figure 9

and were never substantially above the support purchase price after early January.

Wholesale American cheese prices in early December were the lowest since the summer of 1975, with the exception of a brief period late last winter. At Wisconsin assembly points, 40-pound blocks were quoted at less than 93 cents per pound, while barrel cheese was selling for about 86 cents per pound. Even though relatively more of the increase in milk supplies was going into butter-powder production than earlier this year, American cheese output was still heavy and has resulted in prices near the support purchase price when combined with the large commercial stocks. Although supplies of block cheese were ample, the heaviest supplies were of barrel cheese and the differential between the two types remained much wider than a year ago.

Grade A butter at Chicago in early December was quoted at the new support purchase price of 90.8 cents per pound. Since early August, butter prices had dropped from the near-record level of $1.08 per pound.

Even with seasonally declining production, wholesale prices of dried products have stayed fairly weak. Surplus conditions in the nonfat dry milk market have persisted throughout the year as price support purchases have been made in every month. Although demand for dry whey has been quite good recently, large output has greatly moderated upward price pressure. In the Central States production area, edible dry whey was quoted at about 8 cents per pound in early December, up from about 6 cents this summer. Lactose in Eastern markets was priced at about 17 cents per pound. Casein prices have remained relatively low and probably will stay weak as long as the world glut of nonfat dry milk continues and New Zealand is still diverting large quantities of skim milk into casein output.

After rising sharply this summer, wholesale ice cream prices stabilized this fall but were about 7 percent higher than 1975. Changes in wholesale ice cream prices this year primarily reflected fluctuations in the butter market. Manufacturers' selling prices for evaporated milk averaged $13.91 per case in October, up substantially from a year ago.

The wholesale dairy price index, as reported by the Bureau of Labor Statistics (BLS), stood at 168.1 (1967=100) in November, down almost 3 percent

from the August peak and the same as a year ago. This index probably will trend lower in the next few months.

Wholesale dairy product prices likely will hold close to support levels in early 1977. The support purchase prices for dairy products were not changed as a result of the recent quarterly review. In the face of seasonally rising milk output, a substantive rise in wholesale prices likely would require the combination of a dramatic slowing in milk production, compared with a year earlier, and a sharp increase in sales. An important element in the demand for dairy products in the first half of 1976 was the need for rebuilding the depleted commercial stocks. This element will be missing in early 1977 and market conditions probably will be weak, until at least well into the flush milk production season.

Retail Price To Stabilize

Retail dairy prices rose more than 3 percent between May and October this year but probably will be fairly stable in coming months. The BLS index of retail dairy prices stood at 172.7 (1967=100) in October, up about 8 percent from a year earlier. The October increase from a year ago was the smallest since March. Meanwhile, retail prices for all food items were up only 1½ percent from last year and the Consumer Price Index for all items was up 5 percent.

With the expected weakness in most wholesale dairy prices, retail prices likely will be fairly stable, possibly declining slightly this winter. Although

Retail dairy product prices

Item	Unit	Oct. 1975	Jan. 1976	June 1976	Oct. 1976
All dairy products	1967=100	159.4	168.2	167.9	172.7
Butter	c/lb.	114.6	129.7	121.1	131.0
Processed American cheese	c/½-lb.	80.6	85.9	85.8	88.2
Ice cream	c/½-gal.	123.3	124.8	126.7	130.2
Whole milk: At stores	c/½-gal.	78.7	82.2	82.2	84.3
Evaporated milk	c/can	31.0	33.5	34.2	34.7
Skim milk: At stores	c/qt.	42.8	44.4	44.5	45.5

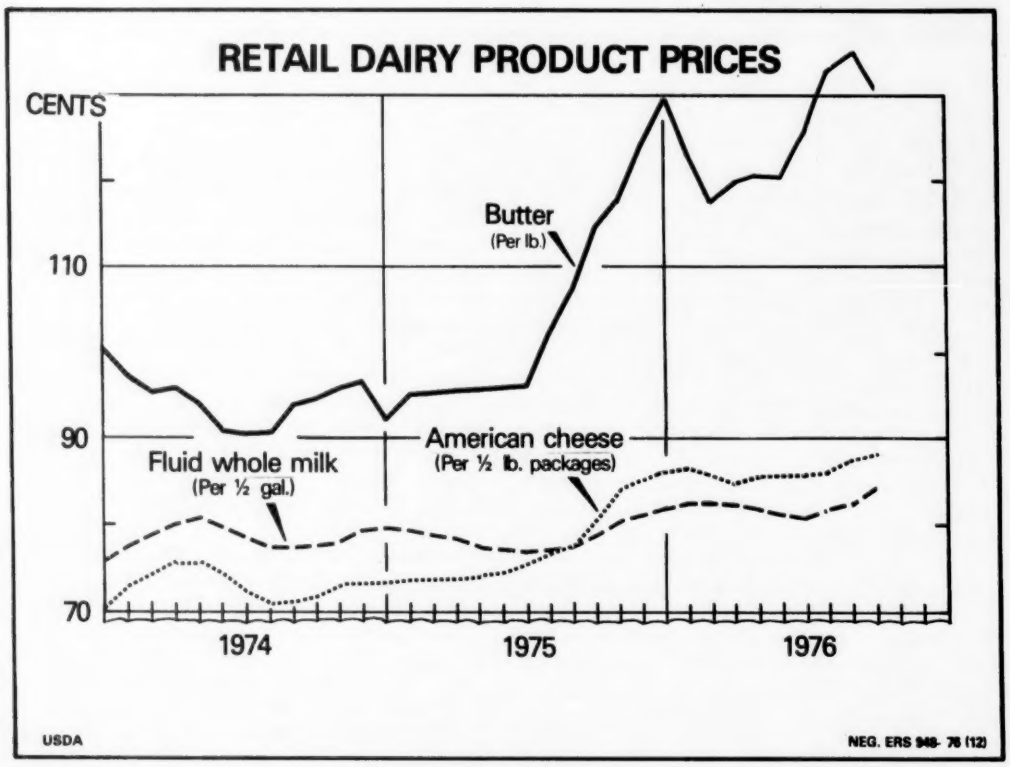

Figure 10

Table 4.--Utilization of milk supply, United States, selected years, 1955-76 1/

Year	Fluid	Creamery butter, net	Cheese			Evaporated and condensed whole milk	Dry whole milk	Frozen dairy products, net	Other factory products	Total factory products 2/	Miscellaneous 3/
			American	Other	Creamed cottage						
	Billion pounds										
1955	49.1	28.0	10.1	3.5	4/	6.3	.8	8.2	1.2	58.0	1.2
1960	53.0	29.4	9.7	3.7	1.0	5.5	.7	9.5	.4	59.8	1.2
1965	55.4	28.5	11.5	4.3	1.0	4.6	.7	10.6	.6	61.8	1.2
1966	55.4	23.7	12.2	4.5	1.0	4.7	.7	10.5	.6	57.9	2.5
1967	54.0	26.1	12.7	4.5	1.0	4.0	.5	10.5	.3	59.8	1.2
1968	53.7	24.9	12.7	4.7	1.1	3.9	.6	11.0	.4	59.2	-.2
1969	52.8	23.7	12.7	4.9	1.2	3.9	.5	11.0	.4	58.3	1.0
1970	52.0	23.9	14.3	5.3	1.2	3.3	.5	11.1	.4	60.0	1.5
1971	51.8	23.9	15.1	5.8	1.3	3.2	.5	11.0	.6	61.5	1.7
1972	53.2	22.8	16.3	6.4	1.3	3.1	.6	11.0	.8	62.2	1.1
1973	52.4	18.6	16.8	6.8	1.1	2.9	.6	11.1	.7	58.7	1.8
1974	50.5	19.3	18.6	7.1	1.0	2.8	.5	11.2	.8	61.2	.7
1975 5/	51.4	19.8	16.5	7.4	1.0	2.7	.5	11.8	.8	60.3	.7
1976 6/	50.9	20.2	20.2	8.7	1.1	2.6	.6	11.6	.7	65.7	.7

1/ Total supply includes milk marketed by farmers, net imports of ingredients such as frozen cream, "ice cream", and butterfat-sugar mixtures, and net changes in storage cream.

2/ May not add due to rounding.

3/ Residual, including miscellaneous minor uses and any inaccuracies of independently determined use items.

4/ Included in other factory products.

5/ Preliminary.

6/ Estimated.

farm milk prices will be lower, increased costs of processing and marketing may hold retail prices near fall levels. However, the increase from a year earlier in retail prices probably will be relatively small.

Fluid milk prices at retail rose to about 84 cents per half gallon in October, up about 2 cents from August and about 6 cents from a year ago (figure 10). However, minimum Class I prices in Federal order markets peaked in October and substantial further rises in retail fluid milk prices are not expected in coming months. Retail ice cream prices rose during July-October and were up almost 6 percent from a year earlier in October. Some easing could occur in coming months due to lower prices of milkfat.

Consumers paid about $1.31 for a pound of butter in October, down 4 cents from September's record high but up 16 cents from 1975. Retail butter prices probably will trend lower in coming months, although the declines may be slowed by the peak holiday season demand. Specials on butter have been fairly common this fall and may continue in coming months. Margarine prices in October were the highest since last March but were still far below the levels of either a year or two years earlier. Although butter prices likely will be below last summer's levels in coming months and margarine prices are expected to be higher, the difference between them will stay wide. However, this difference may be somewhat more favorable to butter than during the early 1970's.

The retail price of processed American cheese reached record levels in October, up almost a tenth from a year earlier. Expected strong demand probably will tend to buoy retail cheese prices this winter.

During the third quarter, the farm-retail spread for dairy products in the marketbasket of farm foods slipped slightly from this spring. The farm-retail spread was up almost 8 percent from the reduced 1975 level but was only 3 percent higher than 1974. Meanwhile, the farm value was up 15 percent from a year ago and the retail value was 11 percent higher. The farmer's share of the retail dollar rose to 52 cents during July-September, up from 50 cents last year and unusually high.

UTILIZATION

Dairy Manufacturing Heavy

Output of manufactured dairy products has been very heavy this fall as large milk production and steady-to-lower fluid sales pushed much more milk into manufacturing. Over an eighth more milk than in 1975 was used for manufactured products in August-October. Although the increases recently

Production of manufactured dairy products

Item	January-October		Change from year ago	
	1975	1976[1]	1975	1976[1]
	Million pounds	*Million pounds*	*Percent*	*Percent*
Butter	832.5	814.7	+3.4	-2.1
Cheese:				
American	1,404.2	1,738.5	-13.2	+23.8
Other	956.3	1,061.6	+6.8	+11.0
Cottage, creamed	735.5	754.5	+1.0	+2.6
Canned milk	807.8	806.8	-9.9	-.1
Dry whole milk	50.8	69.9	-15.6	+37.6
Ice cream (Mil. gal.)	718.9	695.1	+6.6	-3.3
Milk equivalent[2]	50,616	53,945	-1.6	+6.6
Nonfat dry milk	877.6	810.3	-.8	-7.7

[1] Preliminary. [2] Total all reported manufactured products.

may have eased slightly, output stayed high during November. With the large commercial stocks of American cheese, a larger proportion of milk supplies available for manufacturing than earlier this year went into butter-powder production but cheese output was still at record seasonal levels (table 4).

Although approaching its seasonal low, total cheese production was 256 million pounds in October, down only 64 million pounds from the June peak and easily a record-high October output. In fact, the October level was higher than in any month on record prior to 1972. Output of American types was responsible for most of the year-to-year increase in October, up 27 percent. However, this was considerably less than the 35 percent increase in August-September. Production of other varieties has been fairly stable since March and was up about 4 percent from a year ago in October.

October butter production was 14 percent greater than last year, a slightly larger increase than August-September. However, a larger proportion came from milk going directly to butter-powder plants. Nonfat dry milk production was up more than a fourth from a year earlier in September-October. In spite of the large recent increases, both butter and nonfat dry milk output in the first 10 months of 1976 were below 1975, due to large declines earlier in the year.

Frozen dessert output was down a tenth from a year earlier in October, after also being down considerably in the important summer months. Sherbet was the only one of these products to have been produced in larger amounts during January-October than last year.

Among other products, creamed cottage cheese output in October was slightly less than 1975 but lowfat cottage cheese production set a new record. Canned milk output was down substantially, as manufacturers tried to work off large inventories, and dry whole milk production was also lower than

Table 5.--Commercial disappearance: Total milk, annual and by quarters, 1974-76 1/

Item	1974	1975					1976 2/				
		By quarters				Annual	By quarters				Annual
		1st	2nd	3rd	4th		1st	2nd	3rd	4th	
	Billion pounds										
Production	115.6	28.2	31.4	28.6	27.3	115.5	29.0	32.5	30.2		
Farm use	3.3	.8	.8	.8	.8	3.2	.8	.8	.8		
Marketings	112.3	27.4	30.6	27.8	26.5	112.2	28.2	31.7	29.4		
Beginning commercial stocks	4.7	5.6	5.0	5.5	4.7	5.6	3.7	4.2	6.5		
Imports	2.9	.3	.2	.4	.7	1.7	.4	.4	.4		
Total supply	119.9	33.3	35.8	33.7	31.9	119.5	32.3	36.3	36.3		
Ending commercial stocks	5.6	5.0	5.5	4.7	3.7	3.7	4.2	6.5	6.7		
Net removals	1.3	1.1	1.2	4/-.3	5/	2.0	5/	.1	.1		
Commercial disappearance											
Actual	113.0	27.1	29.1	29.3	28.2	113.7	28.1	29.8	29.6		
Percent change 3/	+.5	-3.1	+2.9	+2.3	+.2	+.6	6/+2.4	+2.4	+.9		

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding. 2/ Preliminary. 3/ From year earlier using unrounded data. 4/ Minus denotes domestic sales exceeded purchases. 5/ Less than 50 million pounds. 6/ On a daily average basis.

Table 6.--Factors influencing and indicative of the demand for milk and dairy products, United States, selected years, 1950-76 1/

Year	Total population July 1 (including Armed Forces overseas)	Total civilian employment	Per capita disposable income		Civilian per capita disappearance				
					Milk equivalent		Milk solids		
			Actual	Deflated by consumer price index	Fat-solids basis	Calcium content basis	Milk-fat	Solids-not-fat	Margarine
	Million	Million	Dollars	Dollars	Pounds	Pounds	Pounds	Pounds	Pounds
1950	151.7	58.9	1,355	1,879	740	507	29.3	43.6	6.1
1955	165.3	62.2	1,654	2,062	706	525	27.2	44.5	8.2
1960	180.7	65.8	1,934	2,180	653	512	24.5	43.4	9.4
1965	194.3	71.1	2,430	2,571	620	505	22.9	42.7	9.9
1966	196.6	72.9	2,597	2,672	604	503	22.3	42.4	10.5
1967	198.7	74.4	2,740	2,740	581	494	21.4	41.6	10.5
1968	200.7	75.9	2,930	2,812	577	499	21.2	41.8	10.8
1969	202.7	77.9	3,111	2,833	569	497	20.9	41.7	10.8
1970	204.9	78.6	3,348	2,879	561	486	20.6	41.1	11.0
1971	207.0	79.1	3,588	2,958	558	490	20.5	41.7	11.1
1972	208.8	81.7	3,837	3,062	561	479	20.6	42.2	11.3
1973	210.4	84.4	4,285	3,219	554	477	20.3	42.3	11.3
1974	211.9	85.9	4,639	3,141	543	471	20.0	41.2	11.3
1975 2/	213.5	84.8	5,062	3,140	546	464	20.1	41.0	11.2
1976 3/	215.1	87.4	5,492	3,234	545	477	20.1	43.0	11.5

	Average retail prices, BLS index, 1967=100								
	Consumer price	All foods	Dairy products	Fluid milk, grocery	Butter	Cheese, American process	Ice cream	Evaporated milk	Margarine, colored
1950	72.1	74.5	72.6	71.9	83.4	65.0	102.9	71.9	100.0
1955	80.2	81.6	80.2	81.1	81.5	72.4	98.5	77.6	93.7
1960	88.7	88.0	88.4	91.1	86.7	76.2	100.7	89.7	88.6
1965	94.5	94.4	90.0	90.3	89.4	85.5	95.4	89.7	97.2
1966	97.2	99.1	95.8	96.1	97.3	95.8	97.6	94.2	99.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	103.3	104.1	100.8	102.1	99.8	102.0	98.6
1969	109.8	108.9	106.7	107.0	102.1	107.7	100.5	105.2	98.3
1970	116.3	114.9	111.8	111.6	104.5	115.6	104.8	111.9	106.0
1971	121.3	118.4	115.3	114.6	105.8	121.0	106.2	118.6	116.0
1972	125.3	123.5	117.1	116.3	105.3	124.7	106.5	120.0	117.6
1973	133.1	141.4	127.9	127.3	110.7	138.5	113.1	134.3	133.4
1974	147.7	161.7	151.9	152.5	114.1	167.9	133.3	172.2	204.9
1975	161.2	175.4	156.6	152.7	124.2	175.8	151.6	183.9	224.6
1976 4/	169.8	180.7	168.9	160.4	152.6	198.1	157.9	203.9	188.0

1/ Includes available data for Alaska and Hawaii beginning 1960.
2/ Preliminary.
3/ Estimated.
4/ Ten-month average.

Wisconsin out-of-state milk shipments

Month	1975		1976	
	Loads	Volume	Loads	Volume
	Number	*Thousand pounds*	*Number*	*Thousand pounds*
January	252	11,844	475	22,375
February	135	6,345	176	8,272
March	138	6,486	67	3,149
April	54	2,538	20	940
May	54	2,538	39	1,833
June	49	2,303	30	1,410
July	77	3,619	27	1,269
August	164	7,708	42	1,974
September	548	25,756	293	13,771
October	694	32,618	192	9,024
November	544	25,568	283	13,301
December	384	18,048		
Total	3,093	145,371		

a year ago. Output of almost all whey products in October was larger than a year ago due to the heavy cheese production and some improvement in wholesale prices.

Heavy milk production in most areas of the country continued to keep Wisconsin out-of-State shipments at low seasonal levels. These spot shipments of milk are possibly the best indication of changes in supply-demand conditions for fluid milk in other areas.

Supplies of milk available for manufacturing probably will stay relatively heavy in coming months, as the increase in milk output likely will have to be manufactured. The advantage given to block cheese production under the price support program and expected strong cheese sales might move much of the increase in milk supplies into cheese, but this may be substantially limited by the relatively much larger commercial stocks of American cheese than of butter and low barrel cheese prices.

Record Cheese Sales

Soaring cheese sales have kept commercial disappearance of total dairy products well above 1975 (table 5). Sales of milk in all dairy products were up about 1 percent in July-October. Commercial disappearance for all of 1976 likely will approach 116 billion pounds milk equivalent, up 2 billion pounds from 1975, and may exceed 1966 to set a new record (table 6).

Cheese sales in 1976 have recovered resoundingly from their 1975 dip. Commercial dis-

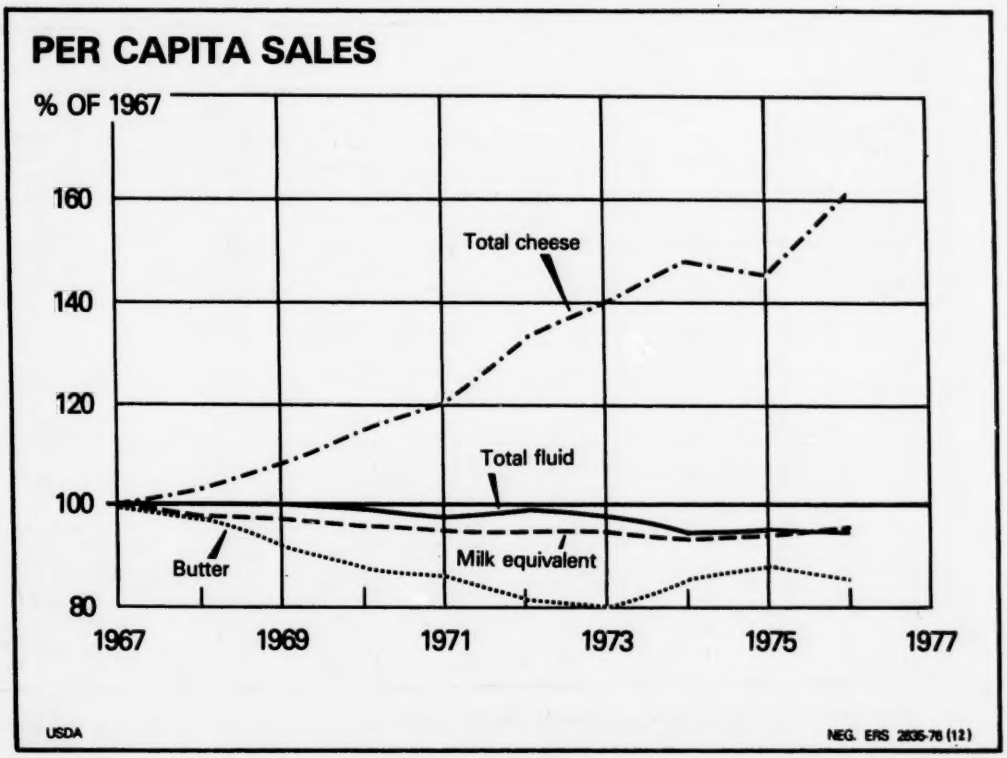

Figure 11

Table 7.--Commercial disappearance: Selected dairy products, United States, annual 1967-75, by quarters, 1975-76

Year and quarter	Butter 1/	Cheese		Nonfat dry milk	Canned milk	Frozen products 3/
		American 2/	Other			
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. gal.
1967	973.9	1,175.9	738.2	1,012.2	1,571.5	1,040.2
1968	976.0	1,213.3	803.0	1,058.0	1,496.8	1,082.3
1969	921.9	1,281.0	861.6	1,042.1	1,376.1	1,092.2
1970	898.2	1,398.0	909.1	983.2	1,213.8	1,097.3
1971	847.1	1,454.8	987.0	981.8	1,186.9	1,102.4
1972	885.4	1,595.7	1,127.8	919.2	1,102.6	1,108.6
1973	855.6	1,677.1	1,210.2	1,110.1	1,056.7	1,118.6
1974	929.9	1,780.6	1,276.5	809.9	999.5	1,124.3
1975	947.7	1,717.0	1,331.8	689.5	950.8	1,176.0
1975-1st	254.7	398.3	305.8	146.6	240.2	246.7
2nd	239.3	442.2	324.5	128.3	222.3	334.2
3rd	217.3	443.4	334.9	237.6	240.1	351.3
4th	236.2	432.9	366.6	176.9	248.2	243.7
1976-1st	248.8	460.2	333.6	189.6	230.1	253.7
2nd	216.7	489.1	365.0	193.1	207.0	318.6
3rd	212.6	478.5	369.7	199.1	224.2	334.2
4th						
	1975-76 percent change					
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
1st 4/	-3.4	+14.2	+8.1	+27.6	-5.3	+1.8
2nd	-9.4	+10.6	+12.5	+50.5	-6.9	-4.7
3rd	-2.2	+7.9	+10.4	-16.2	-6.6	-4.9
4th						

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine. 4/ On a daily average basis.

Table 8.--Milk equivalent: Domestic civilian disappearance, commercial and noncommercial sources, total and per capita, United States, 1955, 1960, and 1965-76

Year	Civilian disappearance					Total military utilization 2/	Consumption excluding donations from USDA supplies		
	Consumed on farms 1/	USDA donations to civilian channels	National School Lunch and Special Milk Programs	Commercial sources	All sources		Civilian	Military	Total
	Million pounds								
1955	11,359	3,102	1,394	98,697	114,552	3,329	111,450	2,627	114,077
1960	6,610	2,040	2,455	105,259	116,364	2,532	114,324	2,228	116,552
1965	3,913	3,593	3,215	107,978	118,699	2,819	115,106	2,387	117,493
1966	3,492	1,129	3,311	108,804	116,736	2,376	115,607	2,376	117,983
1967	3,152	3,113	3,338	103,812	113,415	2,117	110,302	2,117	112,419
1968	2,841	4,114	3,376	103,332	113,663	3,295	109,549	2,186	111,735
1969	2,570	4,545	3,435	102,682	113,232	2,696	108,687	2,051	110,738
1970	2,306	4,187	3,462	103,218	113,173	2,419	108,986	1,788	110,774
1971	2,099	4,526	3,494	103,757	113,876	2,031	109,350	1,608	110,958
1972	1,940	3,906	3,500	106,399	115,745	1,671	111,839	1,258	113,097
1973	1,780	3,521	3,500	106,590	115,391	1,257	111,870	1,257	113,127
1974	1,703	1,459	3,500	107,287	113,949	1,137	112,490	1,137	113,627
1975	1,654	2,296	3,500	108,021	115,471	1,075	113,175	1,075	114,250
1976 3/	1,625	557	3,500	110,460	116,142	1,075	115,585	1,075	116,660

	Per capita civilian disappearance 4/					Civilian consumption excluding donations from USDA supplies
	Consumed on farms 1/	USDA donations to civilian channels	National School Lunch and Special Milk Programs	Commercial sources	All sources	
	Pounds					
1955	70	19	9	608	706	687
1960	37	11	14	591	653	642
1965	20	19	17	564	620	601
1966	18	6	17	563	604	598
1967	16	16	17	532	581	565
1968	14	21	17	525	577	556
1969	13	23	17	516	569	546
1970	11	21	17	512	561	541
1971	10	22	17	508	558	536
1972	9	19	17	515	561	542
1973	9	17	17	512	554	537
1974	8	7	17	512	543	536
1975	8	11	17	511	546	535
1976 3/	8	3	17	519	545	543

1/ Includes a small amount of farm-churned butter sold.
2/ Includes any quantities used by military in civilian feeding programs abroad.
3/ Preliminary.
4/ Aggregate in each category divided by total civilian population.

appearance of American cheese during July-September was about 8 percent higher than a year earlier, while the increase in sales of other types was even larger. The recovering economy provided enough strength to offset the effects of higher retail cheese prices and lower summer meat prices. For all of 1976, sales of all cheese should set a new record rather easily (figure 11).

Butter sales have been fair this year although generally under 1975. Commercial disappearance during July-October was only slightly below a year ago (table 7). Sales of butter this year could be one of the higher annual totals thus far in the 1970's. Price competition from margarine reduced retail butter sales this year but other usage generally has been good.

Changes in dairy sales from year earlier

Item	Jan.-June	July-Oct.[3]
	Percent	*Percent*
Total milk[1]	+3.0	+1.0
Manufactured products:		
American cheese	+12.9	+8.3
Other cheese	+10.8	+8.6
Cottage cheese[2]	+3.3	+2.5
Butter	-5.8	-.6
Ice cream	-1.3	-6.0
Ice milk	-3.2	-6.8
Canned milk	-5.5	-16.4
Nonfat dry milk	+39.2	-14.0
Fluid products:	+.6	+.3
Whole milk	-2.5	-2.9
Skim and lowfat milk	+7.2	+6.9
Cream and mixtures	+4.6	+4.5

[1] On a milk equivalent, fat-solids basis. [2] Creamed and low-fat. [3] July-September for fluid products.

Fluid milk sales weakened slightly this summer. Third quarter sales were only slightly below 1975 but September's 1-percent drop was the sharpest year-to-year decline in 2 years. Although retail fluid milk prices have been fairly stable since early 1976, fluid sales recently have been sluggish. It may be that the full impacts of late 1975's sharp retail price rises are only now being felt.

While use this year of nonfat dry milk has been stable at levels generally somewhat higher than 1975, it stayed far below the usage of earlier years. Commercial disappearance of nonfat dry milk in January-October totaled 641 million pounds, up more than a tenth from 1975 but down almost a fourth from the 1970-74 average. Sales of lowfat milks fortified with added solids-not-fat have continued to decline and many former users have continued to utilize much cheaper substitutes in processed foods.

Among other products, ice cream sales have stayed below last year's brisk levels. Cottage cheese sales were slightly above a year ago in early fall but did not approach the levels of the early 1970's.

Sales prospects for 1977 appear favorable. Expected growth in consumer purchasing power and higher retail beef prices probably will help to boost cheese sales, although the rises from a year earlier are not likely to match this year's jump from the somewhat weak levels of 1975. Although possibly higher retail margarine prices could slightly narrow the difference in butter and margarine prices, butter sales may be about the same as this year. Fluid milk sales could also be steady. While use of nonfat dry milk likely will show some additional recovery next year, it probably will not be large. In total, the only slight year-to-year rises in retail dairy prices expected next year probably will allow dairy sales to expand again in 1977. However, the smaller expected gain in cheese sales likely will result in a similarly smaller rise in total dairy product sales.

Per Capita Use About the Same

Although per capita sales of dairy products likely will post a significant increase this year, per capita civilian consumption probably will be about the same as 1975's 546 pounds milk equivalent (fat solids basis), since government donations fell to almost negligible levels (table 8). With very small beginning USDA stocks and purchases of butter and cheese, very little was available to channel into the school feeding programs.

While per person use of milkfat has remained almost the same in 1976, at just over 20 pounds, per capita consumption of milk solids-not-fat has shown a strong gain. Strong cheese sales and some recovery in nonfat dry milk use accounted for much of the increase. Consumption of milk solids-not-fat has been bolstered in recent years by the sharply increasing use of whey solids for human food.

Per capita use of cheese this year could rise about a pound from 1975's 14½ pounds, possibly the sharpest jump since the 1940's. Butter consumption, though, could fall a half pound per person as both sales and donations probably will be lower. Among other products, per capita consumption of lowfat fluid milks, nonfat dry milk, and cottage cheese is increasing while fluid whole milk, ice cream, and canned milk use is declining.

If per capita sales at least hold steady next year, as now expected, per capita consumption should be higher next year. With the much larger government supplies now anticipated, donations could be substantially larger in 1977. However, with only the school feeding programs left to use large quantities, it is unlikely that domestic donations could return to the 4-5 billion pounds milk equivalent donated in many earlier years.

Table 9.--Net government expenditures on dairy support and related programs, fiscal years, 1950-76

Year beginning July 1	Net support purchases 1/	Military milk 2/	Section 32 3/	Sections 709 and 4(a) 4/	Export assistance 5/	Total (excluding special milk)	Special milk program 6/
			Million dollars				
1949-50	170.5	---	17.6	---	---	188.1	---
1950-51	7/-49.1	---	8/-.9	---	---	7/-50.0	---
1951-52	1.6	---	7.5	---	---	9.1	---
1952-53	274.9	---	25.1	---	---	300.0	---
1953-54	400.4	---	74.0	---	---	474.4	---
1954-55	228.7	4.3	24.4	---	---	257.4	22.2
1955-56	237.9	7.3	39.0	---	---	284.2	48.2
1956-57	239.1	16.4	75.6	---	---	331.1	61.0
1957-58	205.9	30.4	123.7	---	---	360.0	66.7
1958-59	102.1	23.0	106.2	---	---	231.3	74.7
1959-60	159.5	23.6	35.1	---	---	218.2	81.2
1960-61	173.9	25.3	82.1	---	---	281.3	87.0
1961-62	539.0	25.9	47.1	---	---	612.0	91.7
1962-63	454.0	24.8	---	---	6.7	485.5	93.7
1963-64	311.7	26.5	4.4	---	36.5	379.1	97.1
1964-65	157.2	26.2	105.6	---	44.7	333.7	86.5
1965-66	26.1	---	38.7	---	3.8	68.6	97.0
1966-67	283.9	---	.9	14.2	18.4	317.4	96.1
1967-68	357.1	---	---	---	7.1	364.2	103.1
1968-69	268.8	---	45.4	---	13.1	327.3	101.9
1969-70	168.6	---	107.1	7.8	7.4	290.9	102.9
1970-71	315.4	---	91.6	3.2	11.6	421.8	91.8
1971-72	267.0	---	63.9	---	7.3	338.2	93.6
1972-73	135.8	---	15.4	.1	1.5	152.8	90.8
1973-74	31.4	---	10.8	28.7	---	70.9	50.2
1974-75	485.8	---	6.5	3.8	---	496.1	122.9
1975-76	43.9	---	4.1	9/2.8	---	50.8	144.0
Transition quarter*	20.8	---	1.0	---	---	21.8	25.5

1/ CCC support purchases and related costs (for processing, packaging, transporting and storing) of dairy products, less proceeds from sales to commercial buyers for domestic use and for export, U.S. military agencies, foreign government and private welfare agencies, and Section 32 programs.

2/ CCC reimbursements to U.S. military agencies, Veterans' Administration and other participants.

3/ Expenditures of Section 32 funds to buy dairy products in the market and from CCC for school lunch and welfare uses.

4/ Purchases of dairy products at market prices under Section 709 of the Food and Agriculture Act of 1965 and under Section 4(a) of the Agriculture and Consumer Protection Act of 1973, for domestic school lunch and welfare uses.

5/ Value of Payment-in-kind certificates issued by CCC on exports of nonfat dry milk, butter and other high-milkfat products, and CCC cost of exports under Title I, P.L. 480 of dairy products not originating in CCC stocks.

6/ Expenditures under the program to increase milk consumption by children in schools, child-care centers, and similar institutions.

7/ Net receipt due to sales exceeding purchases.

8/ Receipt due to adjustment.

9/ Purchases of evaporated milk.

* Start of fiscal year moved to October 1 in 1976.

SOURCE: Agricultural Stabilization and Conservation Service, USDA.

Table 10.--USDA expenditures for dairy products, fiscal year ending June 30, 1976

Item	Value					Quantity		
	Butter and butter products	Cheese	Nonfat dry milk	Condensed and evaporated milk	Total	Butter and butter products	Cheese	Nonfat dry milk
	Million dollars					Million pounds		
CCC outlays								
Purchases	2.2	9.5	103.6		115.3	3.0	10.7	168.1
Storage, handling	.3	.1	4.4		4.8			
Transportation	.5	.4	1.2		2.1			
Processing, packaging	.4	--	.6		1.0			
Total carrying charges	1.2	.5	6.2		7.9			
Total outlays	3.4	10.0	109.8		123.2			
Sales proceeds								
Dollar sales	18.9	.1	57.9		76.9	23.6	.1	54.7
P.L. 480, Title II	--	--	2/ 29.1		2/ 29.1	--	--	40.3
Other receipts	.4	.1	1.9		2.4			
Total	19.3	.2	88.9		108.4	23.6	.1	95.0
Expenditures								
CCC net expenditures	-15.9	9.8	20.9	--	14.8			
Section 32	--	--	--	1/ 6.9	1/ 6.9			
P.L. 480, Titles II	--	--	2/ 29.1	--	2/ 29.1			
USDA net expenditures	-15.9	9.8	50.0	6.9	50.8			

1/ Includes $2.8 million under Section 4(a).
2/ Includes $4.0 million used in CSM.

Commercial Holdings Heavy

Commercial dairy stocks were at high seasonal levels on November 1. Milkfat in commercial stocks totaled 221 million pounds on that date, up more than half from 1975 and close to the 1974 level. Commercial holdings of milk solids-not-fat, at 281 million pounds, were well below 1974 but were up about two-thirds from last year. Strong production of manufactured products has prevented a normal seasonal decline in these stocks and commercial stocks were somewhat burdensome, in light of the expected increases from a year earlier in milk output and the imminent seasonal upturn in milk supplies. The November 1 commercial stocks totaled 6.3 billion pounds milk equivalent.

Commercial holdings of American cheese were 440 million pounds on November 1, up more than a third from last year and a record high. These stocks were down only 16 million pounds from the later-than-normal seasonal peak of October 1, due to the very heavy cheese output. The holdings were excessive for trade needs. Stocks of other cheese varieties were moderate although they were also above a year earlier.

Dairy product stocks

Item	Nov. 1 1974	Nov. 1 1975	Nov. 1 1976
	Million pounds	*Million pounds*	*Million pounds*
Commercial:			
Butter	60.8	15.4	57.3
American cheese	439.5	324.6	439.9
Other cheese	71.4	59.7	65.2
Nonfat dry milk	144.1	36.0	99.2
Milkfat	225.2	142.4	221.4
Solids-not-fat	323.8	167.8	280.7
Milk equivalent	6,418	4,114	6,330
Government:			
Milkfat	18.4	12.3	2.7
Solids-not-fat	102.4	435.5	382.0
Milk equivalent	474	330	70

Stocks of butter in commercial hands were also quite large on November 1, although they had dropped at a relatively normal seasonal rate. Commercial interests held 57 million pounds of butter on November 1, far above the very low 15 million pounds a year ago but also much higher than most earlier years. Any major trimming of butter or cheese stocks likely will have to come through sales to the government under the price support program.

Manufacturers' stocks of nonfat dry milk totaled 99 million pounds on November 1, down from 120 million pounds on July 1 but more than double a year earlier. These holdings were ample for the current rate of usage and some further reduction is likely in coming months. With wholesale prices resting on support during most of this year, user inventories probably have remained at pipeline levels, since there was no incentive to buy for other than current needs.

USDA Starts Buying

The dramatic turnaround in the butter and cheese markets is possibly best shown in USDA purchases under the price support program. During November—the seasonally low month for milk production--CCC contracted for 0.9 billion pounds milk equivalent, triple the total of the first 10 months of 1976. About 0.4 billion pounds were delivered in November with the rest to be delivered in December and January. During January-November, 19 million pounds of butter, 20 million pounds of cheese, and 20 million pounds of evaporated milk were removed from the commercial market (delivery basis), for a milk equivalent total of 0.6 billion pounds. This compared with 63 million pounds of butter, 68 million pounds of cheese, and 23 million pounds of evaporated milk (2.0 billion pounds milk equivalent) a year earlier.

USDA dairy purchases[1]

Item	January-November		Change
	1975	1976	
	Million pounds	*Million pounds*	*Percent*
Butter	63.4	19.5	-69.2
American cheese	68.2	20.0	-70.7
Nonfat dry milk	394.7	139.5	-64.7
Evaporated milk	22.6	20.4	-9.7
Milk equivalent	2,032	644	-68.3

[1] Deliveries minus unrestricted sales.

Nonfat dry milk purchases remained substantial this fall. The 28 million pounds net removals during October-November brought the total for the first 11 months of 1976 to 140 million pounds, down almost two-thirds from 1975 and also well below 1974. Net purchases of nonfat dry milk in 1976 likely will be the second lowest in over 20 years, primarily due to lower output. Through November, gross purchases totaled 230 million pounds but USDA had sold 90 million pounds of standard grade or very old extra grade nonfat dry milk at reduced prices.

Even with the November purchases, CCC uncommitted inventories of butter and cheese remained quite small on December 1, as purchases are being readily absorbed in domestic donation channels. This could change in coming months,

Table 11.--Dairy products: U.S. imports, quota and non-quota, total 1975, and January-October, 1975-76 1/

Product	Calendar year quota	1975 imports	October			Cumulative, January-October		
			1975	1976	1976 as a % of 1975	1975	1976	1976 as a % of 1975
	Thou. lb.	Thou. lb.	Thou. lb.	Thou. lb.	Pct.	Thou. lb.	Thou. lb.	Pct.
Cheese, quota types								
American-Cheddar	10,037.5	10,600	2,110	209	10	4,288	1,595	37
-Other	6,096.6	6,033	1,550	120	8	1,822	852	47
Italian-Original loaves	11,500.1	10,173	1,255	1,157	92	5,908	9,683	164
-Other	1,494.0	1,232	214	161	75	1,025	1,183	115
Edam and Gouda-Natural	9,200.4	(9,207)	(762)	(817)	(107)	(6,599)	(6,424)	(97)
-Processed	3,151.0	( )	( )	( )	( )	( )	( )	( )
Blue Mold	5,017.0	4,564	527	280	53	3,180	3,010	95
Swiss-Emmenthaler, -$1.00 *	20,420.0	10,473	862	741	86	7,778	10,886	140
-Gruyere-process, -$1.00 *	11,242.0	6,829	837	891	106	4,053	5,329	131
Other-Over 0.5% fat, -$1.00 *	40,730.0	25,832	1,910	937	49	10,854	10,623	98
-Under 0.5% fat	8,901.0	6,667	887	319	36	4,689	3,529	75
Total	127,789.6	91,610	10,914	5,632	52	50,196	53,115	106
Cheese, non-quota types								
Swiss-Emmenthaler, $1.00 + *		36,279	3,471	4,309	124	28,959	39,448	136
-Gruyere-process, $1.00 + *		5,321	397	1,018	256	4,169	5,859	141
Other, $1.00 + *		26,155	3,088	4,202	136	20,862	26,960	129
Pecorino		17,114	1,289	1,272	99	12,735	12,785	100
Roquefort		1,392	156	158	101	1,076	1,287	120
Other 2/		1,557	301	148	49	1,392	1,653	119
Total		87,818	8,702	11,108	128	69,193	87,994	127
Other quota products								
Butter	707.0	526	47	42	89	451	450	100
Butteroil	1,200.0	1,200	---	---	---	1,200	1,200	100
Butterfat mixtures	2,580.0	1,828	---	372	---	495	2,278	460
Ice cream	3,377.3	---	---	---	---	---	---	---
Frozen cream	12,540.0	12,352	2,499	484	19	11,073	11,584	105
Nonfat dry milk	1,807.0	2,465	220	298	135	1,822	1,410	77
Dried buttermilk	496.0	783	---	80	---	783	287	37
Evaporated milk	1,312.0	455	---	---	---	453	28	6
Condensed milk	4,079.0	445	---	126	---	428	592	138
Chocolate crumb-Regular	17,000.0	2,323	436	633	145	986	6,617	671
-Lowfat	4,680.0	2,086	---	---	---	829	1,180	142
Animal feed with milk solids	16,300.0	15,795	7,925	991	12	15,131	8,776	58
Non-quota products								
Casein		58,444	6,711	7,755	116	43,910	86,659	197
Lactose		5,501	---	85	---	5,320	861	16
Milk equivalent, fat solids basis total all products	1,305,620	1,668,680	191,405	148,545	78	1,139,265	1,364,109	120

1/ Preliminary. 2/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya.
*Price break effective October 19, 1976.

Uncommitted CCC stocks

Item	November 30	
	1975	1976
	Million pounds	*Million pounds*
Butter (bulk)	([1])	27.0
American cheese	1.1	7.7
Nonfat dry milk	431.1	391.8

[1] Less than 50,000 pounds.

however, and these holdings may start to grow. Uncommitted inventories of nonfat dry milk totaled 392 million pounds on December 1, down from 431 million pounds a year ago.

USDA purchases could be unseasonally high in coming months as commercial holdings are brought more in line with needs. Purchases of all three products under the price support program are expected to generally continue, at least through the first half of 1977. If milk production shows a sizable gain and sales do not increase sharply, net removals in 1977 might well be the heaviest of recent years.

FOREIGN TRADE AND DAIRY TRENDS

Commercial Trade Remains Small

Commercial trade in dairy products with foreign countries this year has continued small. U.S. imports of dairy products during the first 10 months of 1976 were similar to the 1970-72 average and well above 1975's reduced levels. January-October imports were equivalent to 1.4 billion pounds of milk, up almost a fifth from a year earlier, but still a very minor proportion of domestic dairy supplies (table 11).

Most of the recovery in total imports was due to larger imports of both quota and nonquota cheese. About 141 million pounds of cheese were imported during January-October, up about a sixth from 1975's reduced level and about 17 million pounds above the 1970-72 average. Rising consumer incomes and strong cheese demand have outweighed the effect of the price increases for imported cheeses which have resulted from various reductions in foreign export subsidies.

Effective October 19, the "pricebreak" level, which controls the quota status of Emmenthaler cheese, Gruyere-process cheese, and the miscellaneous tariff category of "Other" cheese, was raised to $1.00 per pound, f.o.b. country of origin, up from 98 cents per pound in effect since last April. Under the provisions of Presidential Proclamation 4138 of June 1972, imports of these cheeses priced below the pricebreak level are subject to quota, while those priced at or above can enter outside of quota. The proclamation specifies that the pricebreak shall be 7 cents above the CCC purchase price for Cheddar cheese, rounded to the nearest whole cent, and shall change whenever the CCC purchase price changes.

Among other quota products, imports of butterfat mixtures, condensed milk, and chocolate crumb are well above 1975 levels but imports of nonfat dry milk, dried buttermilk, and evaporated milk remain well below year-earlier levels.

U.S. dairy trade, January-October
(milk equivalent)

Item	1970-72 average	1975	1976
	Million pounds	*Million pounds*	*Million pounds*
Imports:			
Cheese	974	952	1,136
Other products	326	187	228
Total	1,300	1,139	1,364
Exports	938	463	437
Shipments[1]	520	414	460

[1] To U.S. territories.

U.S. dairy exports have remained small this year, except for nonfat dry milk. Exports of nonfat dry milk totaled about 83 million pounds during January-October as powder donated under Title II of the Food for Peace program (PL 480) continued to move out of the country this fall. While the ten-month total was down from 113 million pounds in 1975, exports for all of 1976 may exceed a year ago.

Commercial exports of other dairy products have remained quite small, and during the first 10 months of 1976 were down slightly from 1975 and well below the 1970-72 average. Equivalent to less than a half billion pounds of milk, these exports were mostly in the form of cheese, canned milk, and infant and dietetic foods. Exports of American cheese and canned milk were above year-earlier levels, but other products trailed. Commercial exports of these products are likely to remain low.

An additional 0.4 billion pounds milk equivalent was shipped to U.S. territories during January-September, slightly more than a year ago. More butter, other-than-American cheese, evaporated milk, and nonfat dry milk were shipped but shipments of other products were down.

World Dairy Supplies Still Heavy

World supplies of milk and dairy products are still heavy, although world milk production in 1976

Table 12.--Milk: Production in specified countries, average 1968-72, annual 1973-76 1/
(In thousands of metric tons)*

Region and country	Average 1968-72	1973	1974	1975 2/	1976 3/	1976 percent change from 1975
North America:						
Canada	8,241	7,659	7,626	7,744	7,550	-2.5
Mexico	5,450	6,199	6,331	6,619	6,915	+4.5
United States	53,432	52,445	52,414	52,371	54,250	+3.6
Total	67,123	66,303	66,371	66,734	68,715	+3.0
South America:						
Argentina	4,667	5,792	5,980	6,184	6,200	+.3
Brazil	7,255	7,211	8,497	10,003	10,701	+7.0
Chile	1,031	855	906	956	1,021	+6.8
Peru	667	619	625	634	640	+.9
Venezuela	911	1,023	1,100	1,160	1,183	+2.0
Total	14,530	15,500	17,108	18,937	19,745	+4.3
Europe:						
Belgium-Luxembourg	3,984	3,850	3,959	3,869	3,800	-1.8
Denmark	4,795	4,729	4,818	4,918	5,010	+1.9
France	29,385	30,397	30,629	30,910	30,400	-1.7
Germany, West	21,770	21,265	21,508	21,604	22,100	+2.3
Ireland	3,260	3,567	3,437	3,683	3,976	+8.0
Italy	9,788	10,339	9,966	9,760	10,100	+3.5
Netherlands	8,252	9,354	9,915	10,221	10,575	+3.5
United Kingdom	12,787	14,287	13,692	13,100	13,550	+3.4
Total EC	94,020	97,789	97,924	98,065	99,511	+1.5
Austria	3,351	3,300	3,272	3,253	3,317	+2.0
Finland	3,417	3,201	3,056	3,164	3,314	+4.7
Greece	1,351	1,569	1,635	1,713	1,703	-.6
Norway	1,773	1,825	1,823	1,834	1,866	+1.7
Portugal	578	605	648	671	685	+2.1
Spain	4,825	5,332	5,429	5,487	5,540	+1.0
Sweden	3,059	2,990	3,066	3,168	3,255	+2.7
Switzerland	3,227	3,295	3,360	3,396	3,441	+1.3
Total Western Europe	115,600	119,905	120,213	120,751	122,632	+1.6
Czechoslovakia	4,725	5,267	5,338	5,298	5,218	-1.5
Germany, East	7,403	7,905	8,196	8,215	7/ 8,215	0
Hungary	1,815	1,898	1,959	1,900	1,860	-2.1
Poland	15,041	16,291	16,717	16,419	15,970	-2.7
Yugoslavia	2,728	3,306	3,531	3,688	3,640	-1.3
Total Eastern Europe	31,712	34,667	35,741	35,520	34,903	-1.7
Total Europe	147,312	154,572	155,954	156,271	157,535	+.8
U.S.S.R.	82,636	88,300	91,800	90,800	85,000	-6.4
Africa:						
South Africa	2,845	2,926	2,671	2,381	2,605	+9.4
Asia:						
China, Peoples Republic	3,840	5,126	5,206	5,282	7/ 5,282	0
India	21,746	23,100	23,700	25,100	26,100	+4.0
Japan	4,609	4,908	4,868	4,963	5,200	+4.8
Total	30,195	33,134	33,774	35,345	36,582	+3.5
Oceania:						
Australia 5/	7,322	7,264	6,957	6,670	6,481	-2.8
New Zealand 6/	6,172	6,044	5,674	5,909	6,486	+9.8
Total	13,494	13,308	12,631	12,579	12,969	+3.1
World total	358,135	374,043	380,309	383,047	383,151	4/

Note: Totals may not add due to rounding.

1/ Includes other-than-cows milk where available.
2/ Revised.
3/ Preliminary.
4/ Less than one-tenth of a percent.
5/ Year ending June 30.
6/ Year ending May 30.
7/ Preceding year estimate carried forward.

*1,000 metric ton = 2.2046 million pounds.

apparently was about unchanged from 1975 (table 12). In fact, in many of the industrialized countries of the world, the dairy supply situation ranges from adequate to critical surplus. However, only Canada has taken steps to substantially reduce milk output.

Total 1976 milk production in 37 major producing countries is estimated at about 383 million metric tons. Production gains in New Zealand, the EC, the United States, Brazil, and India have slightly outweighed declines in Canada, Australia, the USSR, and Poland.

Increased milk production in 1977 is expected in practically all of the major producing regions of the world except Oceania, where expected large declines in Australia will more than offset small increases in New Zealand. World milk output next year could increase around 2 percent, principally from a large boost in the USSR coupled with moderate gains among most other major producing countries.

World stocks of butter and nonfat dry milk will stay above a year earlier at yearend 1976, while lower cheese stocks are expected. World cheese consumption has continued growing in spite of rising retail prices, and cheese stocks—mostly held in the EC and the United States—are expected to decline 1-2 percent during 1976, possibly reaching 726,000 tons by the end of the year.

Yearend butter stocks, mostly held by the EC and New Zealand, likely will show an increase of some 14 percent over a year earlier. The EC butter situation is expected to become even worse in 1977 when the United Kingdom, the world's largest importer, will complete its adjustment of internal prices to EC levels.

Accumulation of world stocks of nonfat dry milk has slowed as world production of nonfat dry milk was about unchanged and vigorous food-aid and feed programs have partially offset the decline in commercial use of powder. End-of-year stocks likely will exceed 2 million tons, an increase of some 7 percent over early 1976 levels.

Table 13.--U.S. Dairy Situation at a Glance

Item	Unit or base period	1974	1975					1976		
		Oct.	Aug.	Sept.	Oct.	Nov.	Year	Aug.	Sept.	Oct.
Production and cow numbers:										
Total milk	Mil. lb.	9,091	9,588	9,068	9,173	8,823	115,458	10,132	9,652	9,685
Milk per cow	Lb.	812	861	815	825	795	10,354	917	874	876
Number of milk cows	Thou.	11,200	11,139	11,128	11,116	11,100	11,151	11,047	11,041	11,053
Prices received by farmers:										
All milk, sold to plants, 100 pounds	Dol.	8.35	8.64	9.25	9.70	10.00	8.75	9.75	9.87	10.00
Percentage of parity 1/	Pct.	72	78	79	81	82	77	83	80	80
Manufacturing grade milk, 100 pounds	Dol.	7.03	7.63	8.25	8.77	9.01	7.63	8.88	8.64	8.53
Parity equivalent	Dol.	8.96	9.56	9.64	9.64	9.64	9.44	10.25	10.25	10.16
Fat content	Pct.	3.77	3.54	3.67	3.76	3.79	3.66	3.54	3.62	3.76
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol.	6.82	7.70	8.27	8.60	8.84	7.62	8.99	8.46	8.26
Milk eligible for fluid market, 100 pounds	Dol.	8.67	8.89	9.49	9.91	10.20	9.02	9.96	10.20	10.40
Price ratios and dairy ration values:										
Milk-feed	Lb.	1.21	1.36	1.48	1.56	1.67	1.40	1.52	1.53	1.60
Manufacturing grade milk-hog	Lb.	.19	.14	.14	.15	.18	.16	.21	.22	.26
Manufacturing grade milk-beef cattle	Lb.	.23	.24	.24	.26	.28	.24	.27	.27	.27
Value of concentrate ration fed milk cows	Dol.	6.88	6.34	6.27	6.21	6.00	6.25	6.42	6.44	6.24
Farm cash receipts from dairy products	Mil. dol.	738	817	818	855	847	9,866	975	908	862
Production of factory products:										
Creamery butter	Mil. lb.	70.7	57.7	57.5	68.3	63.9	980.5	66.0	63.4	78.2
American cheese, whole milk	Mil. lb.	125.5	131.8	116.5	120.0	115.5	1,654.5	177.1	157.2	151.9
Cheese, other than American	Mil. lb.	93.7	95.1	98.3	100.2	93.2	1,156.7	106.8	110.2	104.4
Canned milk, unskimmed	Mil. lb.	60.9	79.1	71.0	67.9	65.7	953.8	76.0	66.4	58.6
Dry whole milk	Mil. lb.	3.7	5.4	4.2	5.3	5.4	63.1	7.0	6.2	4.5
Frozen products 2/	Mil. gal.	88.6	119.0	103.7	91.0	75.7	1,176.0	113.8	101.2	81.6
Creamed cottage cheese	Mil. lb.	70.4	71.3	70.9	71.4	63.1	861.7	75.3	74.2	70.7
Total whole milk equivalent 3/	Mil. lb.	4,308	4,687	4,265	4,315	3,938	59,219	5,351	4,868	4,727
Nonfat dry milk, human use	Mil. lb.	54.6	69.1	50.1	45.5	49.5	994.0	75.2	61.2	61.6
Wholesale prices:										
Butter, 92-score, Chicago, pound	Ct.	68.8	83.6	87.9	93.0	97.3	79.4	106.2	92.4	90.8
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct.	78.5	89.8	94.0	99.0	99.3	86.6	106.2	98.1	93.3
Evaporated milk, case (mid-point of range)	Dol.	11.93	12.08	12.32	12.40	12.62	12.27	13.90	13.22	13.91
Dry whole milk, pound	Ct.	65.4	70.6	76.2	79.2	83.4	71.0	83.7	80.3	78.4
Nonfat dry milk, pound	Ct.	57.7	62.0	64.6	68.9	70.5	65.3	63.0	63.6	62.7
Dairy products and ice cream index (BLS)	1967=100	146.4	156.3	160.8	165.6	168.1	155.8	173.9	170.3	169.5
Retail prices (BLS):										
Milk, fresh, grocery, half-gallon	Ct.	77.5	77.0	77.7	78.7	80.2	78.5	82.0	82.9	84.3
Evaporated milk, 14½-ounce can	Ct.	30.1	30.4	30.6	31.0	31.6	30.8	34.3	34.5	34.7
Cheese, American, processed, sliced, ½-pound package	Ct.	71.4	76.5	77.9	80.6	84.0	76.8	86.2	87.7	88.2
Butter, pound	Ct.	94.4	101.9	107.1	114.6	117.6	102.5	133.2	135.0	131.0
Ice cream, half-gallon	Ct.	112.3	121.1	120.8	123.3	123.8	122.3	126.3	126.4	170.2
Dairy products index	1967=100	151.7	154.3	156.3	159.4	162.8	156.6	169.0	171.1	172.7
All foods index	1967=100	166.1	178.1	177.8	179.0	179.8	175.4	182.4	181.6	181.6
Margarine, colored, pound	Ct.	66.4	58.5	58.9	58.9	58.3	62.9	50.7	51.9	53.0
Stocks, end of month:										
Creamery butter	Mil. lb.	83.1	78.9	39.6	27.1	15.1	---	82.4	68.1	60.3
Cheese, total 4/	Mil. lb.	512.1	461.4	430.5	393.3	380.4	---	518.2	522.6	505.7
Canned milk, unskimmed	Mil. lb.	124.1	105.6	96.6	71.0	63.9	---	136.5	128.5	131.8
Dry whole milk	Mil. lb.	9.7	7.3	6.2	4.4	3.6	---	11.7	11.0	10.5
Total whole milk equivalent 5/	Mil. lb.	6,891	6,279	5,133	4,445	4,053	---	6,995	6,720	6,399
Nonfat dry milk	Mil. lb.	250.1	529.5	512.5	485.8	473.3	---	505.6	494.8	496.0
Commercial disappearance:										
Creamery butter	Mil. lb.	93.4	77.9	66.5	78.7	71.4	947.7	64.9	76.9	81.6
Cheese, American	Mil. lb.	145.9	159.5	141.9	153.2	128.7	1,717.0	169.7	153.1	167.6
Cheese, other than American	Mil. lb.	115.4	108.6	113.2	117.7	119.0	1,331.8	123.0	126.8	121.8
Canned milk, unskimmed	Mil. lb.	88.0	86.6	76.6	92.6	71.8	950.8	79.9	73.3	53.9
Milk in all products	Mil. lb.	9,752	10,144	9,401	9,677	9,090	113,714	9,916	9,785	9,796
Nonfat dry milk	Mil. lb.	50.2	90.5	72.4	63.0	56.8	689.5	67.6	63.7	59.5
USDA net removals:										
Butter	Mil. lb.	-.2	-17.4	-3.2	---	---	63.4	---	---	4.9
Cheddar cheese	Mil. lb.	3.7	.1	.1	---	---	68.2	---	---	.4
Nonfat dry milk	Mil. lb.	27.7	.5	.4	-4.7	-7.9	394.5	10.6	9.7	8.9
Evaporated milk	Mil. lb.	2.4	1.8	3.3	1.0	.9	24.5	1.5	1.1	1.5
Total whole milk equivalent	Mil. lb.	37	-355	-59	2	2	2,036	3	2	108
Fluid sales, change from year earlier: 6/										
Whole milk	Pct.	-2.8	-1.3	-.4	-1.0	-2.2	-1.0	-3.2	-4.9	
Cream and cream mixtures	Pct.	+2.3	-.8	+8.9	+8.7	+4.2	+5.1	+4.6	+3.3	
Low-fat and skim milk	Pct.	+10.9	+7.9	+10.4	+9.3	+8.4	+9.9	+6.5	+7.4	
Total	Pct.	+1.0	+1.5	+2.9	+2.2	+1.1	+2.4	-.1	-1.0	

1/ Seasonally adjusted price as percentage of parity price.
2/ Ice cream, ice milk, and sherbet.
3/ Includes manufactured products for which current monthly series are available.
4/ Natural, plus process American cheese held by CCC.
5/ Excludes cream and bulk condensed milk.
6/ Daily average sales in Federal and State Marketing areas.

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